

REMARKS

Claims 1-37, all the claims pending in the application, stand rejected on prior art grounds. Claims 1, 13, 25, and 37 are amended herein. Additionally, the specification is amended to cure a typographical error, whereby the XML data stream should properly be designated as element reference numeral "224" instead of "24". Applicants respectfully traverse the rejections based on the following discussion.

I. The 35 U.S.C. §101, Rejection

Claim 37 stands rejected under 35 U.S.C. §101 because, according to the Office Action, the claimed invention is directed to non-statutory subject matter. These rejections are traversed as explained below. Claim 37 has been amended to remove the "means plus function" language, and in its place, recites the structural elements of the claimed invention. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

II. The Prior Art Rejections

Claims 1-37 stand rejected under 35 U.S.C. §102(e) as being anticipated by Lindblad et al. (U.S. Publication No. 2004/0073541), hereinafter referred to as "Lindblad". Applicants respectfully traverse these rejections based on the following discussion.

Lindblad teaches a method for processing queries for a document of elements. The document includes a plurality of subsections where each subsection includes at least a portion of elements in the document. The method comprises receiving a query for a path of elements in the document of elements; determining a plurality of step queries from the query, each step query

including at least a part of the path of elements; for each step query in the plurality of step queries, determining one or more subsections that include elements that correspond to a step query; and determining at least one subsection that includes the path of elements of the query. A result for the query is generated using the at least one subsection.

The claimed invention, as provided in amended independent claims 1, 13, 25, and 37 contain features, which are patentably distinguishable from the prior art references of record. Specifically, claims 1 and 25 recite, in part, “...using a parser that is external to said index to selectively skip portions of said document based on instructions from said index.” Claim 13 recites, in part, “...a parser that is external to said index and operable for selectively skipping portions of said document based on instructions from said index.” Claim 37 recites, “...an index corresponding to a document written in a mark-up language, wherein said index comprises a plurality of elements representing categories of a query; a processor operatively connected to said index and adapted to scan said document; a parser that is external to said index and said processor and adapted to selectively skip portions of said document based on instructions from said index; and a buffer that is operatively connected to said processor and adapted to save said textual categories, wherein said buffer is external to said index, said parser, and said processor.”

Applicants’ Figure 2(a) clearly illustrates the structural relationship between the index 210, parser 230, processor 220, and buffer 240, and such a structural relationship allows the index 210 to be more compact in size than conventional systems (see Applicants’ specification, page 14, lines 1-2, paragraph [0032]).

Lindblad does not teach that the parser is external to the index. In Lindblad, the PostingList is embodied with a “skip-list” structure that facilitates the skipping function. This

PostingList and "skip-list" structure is located within the index 213 in Lindblad. For example, paragraph [0107] of Lindblad states:

In one embodiment, the format uses unary-log-log variable length bit encodings for subtree id's and scores. Furthermore, both subtree id's and scores may be kept in a differential form where each Posting stores only the encoded difference from the preceding subtree id and score. Large PostingLists typically have long strings of consecutive subtree id's with scores that are mostly equal. The PostingList formats encode the consecutive runs using only one or two bits for the delta(id) (the id differential), and delta(score) (the score differential). Large PostingLists are stored with markers containing sufficient information to allow a search process to skip forward across blocks of Postings (a "skip-list" structure). The skip-list block size a configurable parameter.

Next, Lindblad teaches that the PostingLists are internal to the index 213, which is an opposite teaching of the Applicants' claimed invention. Particularly, paragraph [0103] of Lindblad states:

In one embodiment, index 213 is an inverted file index. The inverted file index maps terms to PostingLists. The terms correspond to textual units extracted from a collection of documents 202 or document fragments from documents 202, and PostingLists describe where and how often each term appeared within a given document or document fragment from documents 202.

This internal structural relationship of the index 213 and PostingLists is further substantiated in paragraph [0150] of Lindblad, which states, in part:

[I]ndex 213 stores, for each term, at a location determined by the hash key of that term, a PostingList containing references to the subtrees containing the term along with a normalized frequency count (score) that approximates the number of occurrences of the term within the subtree.

Furthermore, paragraph [0174] of Lindblad reiterates that the index 213 contains the

PostingLists:

A search is performed for the intersection of Q1, Q2, and Q3, which returns a sequence of nodes labeled C. The PostingLists for the canonicalized terms corresponding to Q1, Q2, and Q3 are retrieved from index 213, and then scanned for common subtree ids. The PostingList skip list structure is used to prune the search for common subtree ids. A PostingList block will be skipped over in the event that the 'maxSubTreeID' stored in the block is actually smaller than any of the currently smallest remaining subtree id in the other PostingLists.

Therefore, the Applicants' claimed invention contains features that are not taught in Lindblad, and therefore, are patentably distinct from Lindblad given that Lindblad provides an opposite teaching to the Applicants' claimed invention. Lindblad does not teach the features defined by amended independent claims 1, 13, 25, and 37 and as such, claims 1, 13, 25, and 37 are patentable over Lindblad. Furthermore, dependent claims 2-12, 14-24, and 26-36 are similarly patentable over Lindblad, not only by virtue of their dependency from patentable independent claims, respectively, but also by virtue of the additional features of the invention they define. Thus, the Applicants respectfully request that these rejections be reconsidered and withdrawn. Moreover, the Applicants note that all claims are properly supported in the specification and accompanying drawings. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

III. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

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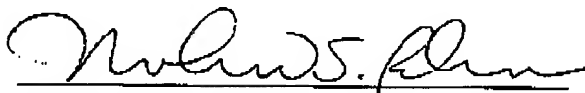
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In view of the foregoing, Applicants submit that claims 1-37, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 09-0441.

Respectfully submitted,

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